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AZ CORP COMMISSION  
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TO: Docket Control

FROM: Steve M. Olea  
Acting Director  
Utilities Division

DATE: September 24, 2001

RE: STAFF REPORT FOR ST. DAVID WATER ASSOCIATION APPLICATIONS FOR  
A PERMANENT RATE INCREASE (DOCKET NO. W-02084A-01-0389) AND  
FINANCING APPROVAL (DOCKET NO. W-02084A-01-0636).

Attached is the Staff Report for St. David Water Association applications for a permanent rate increase and financing approval. Staff recommends approval of its rates and charges outlined in Schedule 5. Staff also recommends approval of the financing application. Staff further recommends that a hearing not be held in this matter.

SMO:DRR:dr

Originator: Dennis R. Rogers

Attachment: Original and Eleven Copies

Arizona Corporation Commission

DOCKETED

SEP 24 2001

DOCKETED BY	<i>DRR</i>
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Service List for: ST. DAVID WATER ASSOCIATION  
Docket Nos. (W-02084A-01-0389)  
(W-02084A-01-0636)

**ALL SERVICE LISTS SHOULD INCLUDE THE FOLLOWING:**

St David Water Association  
Mr. Reg Garavito, President of the Board  
Post Office Box 172  
Saint David, Arizona 85630

Mr. Christopher C. Kempley  
Chief, Legal Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Mr. Steven M. Olea  
Acting Director, Utilities Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Ms. Lyn Farmer  
Director, Hearing Division  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

STAFF REPORT  
UTILITIES DIVISION  
ARIZONA CORPORATION COMMISSION

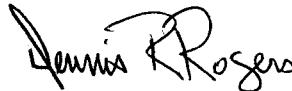
ST. DAVID WATER ASSOCIATION  
DOCKET NO. W-02084A-01-0389  
DOCKET NO. W-02084A-01-0636

APPLICATIONS  
FOR A  
PERMANENT RATE INCREASE AND  
A FINANCING APPROVAL

September, 2001

## STAFF ACKNOWLEDGMENT

St. David Water Association applications (Docket Nos. W-02084A-01-0389 and Docket Number W-02084A-01-0636) were the responsibility of the Staff members listed below. Dennis R. Rogers was responsible for the review and analysis of the Company's application for a permanent rate increase, Staff's recommended revenue requirement, rate base, rate design, and financing application. Dorothy Hains was responsible for the engineering and technical analysis. Bradley Morton was responsible for reviewing the Arizona Corporation Commission's records on the Company, determining compliance with Commission policies/rules and reviewing customer complaints filed with the Commission.

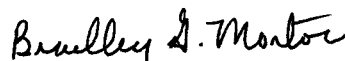


Dennis R. Rogers  
Rate Analyst I



Dorothy Hains  
Utilities Engineer

Bradley Morton  
Consumer Service Specialist



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Engineering Report

**FACTSHEET**

**Company:**

CC&N: Decision No. 40325 dated November 17, 1969  
Current Permanent Rates: Decision No. 60973, dated June 19, 1998  
Type of Ownership: Non-Profit Association, incorporated February 29, 1968

Location: Town of St. David, Cochise County. Not located in an Active Management Area (AMA)

**Rates:**

Permanent rate application filed: July 2, 2001  
Current Test Year Ended: December 31, 2000  
Prior Test Year Ended: December 31, 1996

	<u>Current Rates</u>	<u>Company Proposed Rates</u>	<u>Staff Proposed Rates</u>
Monthly Minimum Charge (Based on a 5/8 X 3/4 – inch meter)	\$14.00	\$23.00	\$15.00
Gallons in Minimum	3,000	5,000	0
Charge per 1,000 gallons In Excess of Minimum:			
From 1 to 3,000 gallons:	\$0.00	\$0.00	\$1.25
From 3,001 to 5,000 gallons:	\$1.34	\$0.00	\$1.25
From 5,001 to 10,000 gallons:	\$1.34	\$1.41	\$1.25
From 10,001 to 30,000 gallons:	\$1.34	\$1.41	\$2.00
In Excess of 30,000 gallons:	\$1.34	\$1.41	\$2.25
Typical residential bill (based on median usage of 7,506 gallons)	\$20.04	\$26.53	\$24.38

St. David Water Association

Docket Numbers W-02084A-01-0389 and W-02084A-01-0389

Page 2

**Customers:**

Number of customers in the prior Test Year (12/31/96): 388

Number of customers in the current Test Year (12/31/00): 396

Current Test Year customers by meter size:

5/8 X 3/4 – inch	380
1 - inch	10
1½ - inch	1
2 - inch	5

Seasonal customers: N/A

Customer notification mailed:

Rate Increase Application: April 30, 2001

Finance Application: June 27, 2001

Number of customer concerns since rate application filed: 1

Percentage of concerns to customer base: 0.25%

### **Summary of Filing**

Based on Test Year results, as adjusted by Staff, St. David Water Association, ("Association" or "Company") realized an operating income of \$22,560 on an Original Cost Rate Base ("OCRB") of \$540,718 for a rate of return of 4.17 percent as shown in Schedule 1.

The Company's proposed rates, as filed, produce a revenue level of \$172,362, operating income of \$53,122, for a 10.79 percent rate of return on an OCRB of \$492,312. This would increase the typical residential bill with a median usage of 7,506 gallons, from \$20.04 to \$26.53 for an increase of \$6.49 or 32.4 percent.

Staff's recommended revenue level of \$173,279 results in an operating income of \$40,616, for a rate of return of 7.51 percent on an OCRB of \$540,718. The typical residential bill, with a median usage of 7,506 gallons, would increase from \$20.04 to \$24.38, for an increase of \$4.34 or 21.7 percent.

### **Background**

The Company received its last permanent rate increase in Decision No. 60973, dated June 19, 1998. On May 7, 2001, the Company filed a permanent rate increase application. On August 3, 2001, the Company filed a financing application seeking approval for \$60,000 in mortgage debt.

### **Consumer Services**

Staff's review of Consumer Services records reflect that there have been no formal or informal complaints filed during the last three years.

Consumer Services received one opinion expressing an objection to the permanent rate increase. The customer also expressed concern regarding the rate structure, lack of consideration given to conservation, and the impact that the rate increase would have on low-income families. Staff believes that these concerns have been addressed by its recommended rate structure.

A sample bill rendered by the Company reflects that the bill complies with AAC R14-2-409.B.2.



### **Engineering Analysis**

Staff Engineering conducted a field inspection of the Company on August 7, 2001. Please refer to attached Engineering Report for description of the system.

Non-accounted water should be 10% or less and never more than 15%. Non-accounted water for St. David was calculated to be 10.65. Staff recommends that the Company reduce its water loss to less than 10% before submitting its next rate application, or submit a detailed explanation as to why it is not cost-effective to do so.

In regards to water testing, Staff Engineering estimated that the Company's cost to perform the required tests is approximately \$2,833 per year.

### **Compliance**

Arizona Department of Environmental Quality ("ADEQ") certified the system is delivering water that does not exceed any maximum contaminant level, ("MCL") and meets the quality standards of the Safe Drinking Water Act.

The Company is not located in an AMA and, consequently, it is not subject to reporting or monitoring of water usage.

The Company is current in its remittance of sales tax and property taxes.

### **Rate Base**

Staff's adjustments to Rate Base resulted in an increase of \$48,406, as depicted in Schedule 2, Page 1.

Adjustment A increased Plant in Service by \$10,944. Please refer to the Plant in Service section of this Report for an explanation of the adjustments.

Adjustment B decreased Accumulated Depreciation by \$31,033. Please refer to Accumulated Depreciation section of this Report for an explanation of the adjustments.

Adjustment C reclassified \$1,600 to Contributions In Aid of Construction ("CIAC") from Non-Utility Income to reflect hook-up fees collected in the Test Year.

Adjustment D decreased Working Capital by \$147 based on Staff's adjustments to Operating Expenses.

Adjustment E reclassified \$8,176 to Inventory from Utility Plant in Service for pumping equipment salvaged from Well No. 1 that was retired.

### **Plant in Service**

Plant in Service was increased by \$10,944 as shown in Schedule 2, Page 2 of 3.

Adjustment A increased Structures and Improvements by \$1,175. Staff reclassified fencing around office building charged to Operating Expenses.

Adjustment B increased Wells & Springs by \$20,891. Staff reclassified dry Well No.4 expenditures from Miscellaneous Non-Utility Expenses to the asset account of \$43,912. Staff recorded the retirement of Well No.1 that was taken out of service in 1999 at its original cost of \$4,255. Staff also removed the costs of \$18,766 that were incurred in an effort to rehabilitate Well No.1 that were unsuccessful.

Adjustment C decreased Pumping Equipment by \$11,122. Staff's recommended balance of \$126,653 was derived by subtracting Well No. 1 booster pumps at original cost of \$2,946 and transferring Pumping Equipment salvaged from Well No.1 to an inventory account in the amount of \$8,176.

Adjustment D reclassified \$14,597 from Other Plant and Miscellaneous Equipment to transfer the cost of computer equipment to Office Furniture and Equipment.

Adjustment E increased Office Furniture and Equipment by \$14,597 for costs associated with computer equipment recorded as Other Plant and Miscellaneous Equipment.

### **Accumulated Depreciation**

Staff decreased Accumulated Depreciation by \$31,033. Staff's balance of \$184,182 was derived by adding depreciation expense for the intervening years between rate cases (1997 to 2000) to the ending accumulated depreciation balance of \$131,588 approved in the Company's last rate case. In addition, Staff reduced accumulated depreciation by \$34,143 as a result of plant retirements.

### **Operating Revenue**

Staff's adjustment A reclassified \$909 from Metered Water Revenues to Unmetered Water Sales to reflect the income derived from standpipe sales.

### **Operating Expenses**

Staff reduced operating expenses by \$4,529 as depicted in Schedule 3, page 1 of this Report.

Adjustment B reclassified \$1,175 from Repairs and Maintenance to the asset account Structures and Improvements for the cost of a permanent fence erected around the office building.

Adjustment C reclassified \$2,321 from Insurance – General Liability to Insurance – Health and Life.

Adjustment D reclassified \$2,321 to Insurance – Health and Life of \$2,321 from Insurance – General Liability.

Adjustment E decreased Depreciation Expenses by \$3,404 consistent with the approved depreciation rates and Staff's adjustments to Plant in Service.

Adjustment F reclassified \$1,600 from Non-Utility Income to account for Hook-Up Fees that should have been recorded as Contributions In Aid of Construction.

Adjustment G reclassified \$43,912 from Non-Utility Expense to Wells and Springs. This adjustment reflects the cost of drilling a dry well consistent with National Association of Regulatory Utility Commissioners ("NARUC") accounting system.

### **Rate of Return**

Staff's recommended rates and charges resulted in a 7.51 percent rate of return. Staff based its recommended revenues on the cash required for operation and maintenance of approximately \$132,663, repayment of Advances in Aid of Construction of approximately \$1,000 and debt service coverage of \$30,300. Staff's recommended revenue level would also provide a positive cash flow of approximately \$43,000 for contingencies and other unforeseen expenditures or plant additions.

### **Rate Design**

The Company's current rate design is composed of one tier that includes 3,000 gallons in the monthly minimum charge. The Company is proposing a similar rate design consisting of one tier and increasing the gallons in the minimum charge from 3,000 to 5,000. The Company's proposed rate design results in a lower increase in a customer's bill as gallonage increases.

Staff's recommended rate design consists of three tiers with no gallons included in the monthly minimum charge. The first tier break at the 10,000-gallon range would apply to 62 percent of the customers which represents approximately 23 percent of the water sold. The second tier break at the 30,000-gallon range applies to approximately 30 percent of the customers that used 46 percent of the water sold. The third tier in excess of 30,000 gallons applies to 8 percent of the customers that consumed 25 percent of the water sold.

Staff's recommended inverted three-tier rate structure results in a higher price for water as usage increases. Staff believes that its recommended rate structure is more compatible with water conservation efforts. In addition, with no gallons included in the minimum charge, customers would only pay for the water used and would have greater control of their bill.

### **Financing**

The Company, in addition to the instant application, is requesting retroactive approval for long-term debt of \$60,000 at 9.00 percent interest for a term of 15 years. The Company obtained this loan in October 1997 without Commission approval.

The proceeds of the loan were used to construct a 1,512 square foot commercial building for office space, a maintenance-repair facility and a tool shed. Staff reviewed the cost and reasonableness of the projects funded.

Staff's analysis shows that the financing was for lawful purposes within the corporate purposes, compatible with the public interest, and will not impair St. David's ability to provide service to the public. This loan was transacted in 1997. At that time, the propriety of the loan was consistent with sound financial practices. The amount of the loan and the interest rate are reasonable. Staff has factored the debt into rates resulting in a 1.55 Times Interest Earned Ratio and a 2.82 Debt Service Coverage Ratio. The resulting ratios are consistent with sound financial principles.

Based on the above, Staff recommends retroactive approval of the financing application. However, Staff recommends that the Company be ordered to seek Commission approval before transacting any future long-term debt, as required by Commission rules.

### **Staff Recommendations**

Staff recommends approval of the rates and charges presented in Schedule 4 of this Report.

Staff further recommends retroactive approval of the financing application.

Staff further recommends that the Company be ordered to seek Commission approval before transacting any future long-term debt, as required by Commission rules.

Staff further recommends approval of its rates and charges and financing application without a hearing.

Staff further recommends that in addition to the collection of its regular rates and charges, the Company shall collect from its customers their proportionate share of any Privilege, Sales or Use Tax where appropriate as provided for in A.A.C. R14-2-608.D.3.

**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 1

**SUMMARY OF FILING**

	-- Present Rates --		-- Proposed Rates --	
	Company as Filed	Staff as Adjusted	Company as Filed	Staff as Adjusted
Revenues:				
Metered Water Revenue	\$134,823	\$133,914	\$169,914	\$169,922
Unmetered Water Revenue	0	909	0	909
Other Water Revenues	2,448	2,448	2,448	2,448
Total Operating Revenue	\$137,271	\$137,271	\$172,362	\$173,279
Operating Expenses:				
Operation and Maintenance	\$86,494	\$85,319	\$86,494	\$85,319
Depreciation	20,105	16,701	20,105	34,653
Property & Other Taxes	12,641	12,641	12,641	12,641
Income Tax	0	50	0	50
Total Operating Expense	\$119,240	\$114,711	\$119,240	\$132,663
Operating Income/(Loss)	\$18,031	\$22,560	\$53,122	\$40,616
Rate Base	\$492,312	\$540,718	\$492,312	\$540,718
Rate of Return	3.66%	4.17%	10.79%	7.51%
Operating Margin	13.14%	16.43%	30.82%	23.44%
Debt Service Coverage				2.82
Times Interest Earned Ratio				1.55

- NOTES: 1. The times interest earned ratio (TIER) represents the ability of the Company to pay interest expenses before taxes.
2. Operating Margin represents the proportion of funds available to pay interest and other below the line or non-ratemaking expenses.

**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 2

Page 1 of 3

**RATE BASE**

	----- Original Cost -----			
	Company	Adjustment		Staff
Plant in Service	\$1,278,761	\$10,944	A	\$1,289,705
Less:				
Accum. Depreciation	215,215	(31,033)	B	184,182
<b>Net Plant</b>	<b>\$1,063,546</b>	<b>\$41,977</b>		<b>\$1,105,523</b>
Less:				
Plant Advances	\$15,779	\$0		\$15,779
Meter Deposits	3,041	0		3,041
<b>Total Advances</b>	<b>\$18,820</b>	<b>\$0</b>		<b>\$18,820</b>
Contributions Gross	\$595,963	\$1,600	C	\$597,563
Less:				
Amortization of CIAC	30,085	0		30,085
<b>Net CIAC</b>	<b>\$565,878</b>	<b>\$1,600</b>		<b>\$567,478</b>
<b>Total Deductions</b>	<b>\$584,698</b>	<b>\$1,600</b>		<b>\$586,298</b>
Plus:				
1/24 Power	\$503	\$0		\$503
1/8 Operation & Maint.	9,304	(147)	D	9,157
Inventory	3,658	8,176	E	11,834
Prepayments	0	0		0
<b>Total Additions</b>	<b>\$13,464</b>	<b>\$8,029</b>		<b>\$21,493</b>
<b>Rate Base</b>	<b>\$492,312</b>	<b>\$48,406</b>		<b>\$540,718</b>

*Explanation of Adjustment:*

A - See schedule 2, Page 2.

B - See Schedule 2, Page 3.

C - To record Hook-up Fees to CIAC originally credited to Non-Utility Income.

D - Based on Staff adjustments to Operating Expenses.

E - To reclassify from Utility Plant In Service - Pumping Equipment to Inventory.

**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 2

Page 2 of 3

**PLANT ADJUSTMENT**

	Company Exhibit	Adjustment	Staff Adjusted
301 Organization	\$0	\$0	\$0
302 Franchises	0	0	0
303 Land & Land Rights	23,100	0	23,100
304 Structures & Improvements	66,984	1,175 A	68,159
307 Wells & Springs	106,715	20,891 B	127,606
311 Pumping Equipment	137,775	(11,122) C	126,653
320 Water Treatment Equipment	0	0	0
330 Distribution Reservoirs & Standpipes	226,978	0	226,978
331 Transmission & Distribution Mains	627,103	0	627,103
333 Services	26,802	0	26,802
334 Meters & Meter Installations	35,175	0	35,175
335 Hydrants	4,176	0	4,176
336 Backflow Prevention Devices	0	0	0
339 Other Plant and Misc. Equipment	14,597	(14,597) D	0
340 Office Furniture & Equipment	2,230	14,597 E	16,827
341 Transportation Equipment	3,902	0	3,902
343 Tools Shop & Garage Equipment	1,224	0	1,224
344 Laboratory Equipment	0	0	0
345 Power Operated Equipment	0	0	0
346 Communication Equipment	0	0	0
347 Miscellaneous Equipment	0	0	0
348 Other Tangible Plant	2,000	0	2,000
105 C.W.I.P.	0	0	0
<b>TOTALS</b>	<b>\$1,278,761</b>	<b>\$10,944</b>	<b>\$1,289,705</b>

**Explanation of Adjustment:**

A - To reclassify fence erected around office building from operating expense to an asset account.

B - To reclassify dry Well# 4 costs from operating expense to asset account. \$ 43,912

To record retirement of Well# 1, taken out of service in 1999. (4,255)

To record retirement of Well#1, taken out of service in 1999. These costs (18,766)

represent the company's unsuccessful effort to rehabilitate the well. \$ 20,891

C - To reclass Pumping Equipment taken from retired Well#1 to Inventory. \$ (8,176)

To record retirement of Well# 1 booster pumps. (2,946)

\$ (11,122)

D - To reclassify computer equipment from Other Plant and Miscellaneous Equipment to Office Equipment.

E - To reclassify computer equipment to Office Equipment from Other Plant and Miscellaneous Equipment.

**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 2

Page 3 of 3

**ACCUMULATED DEPRECIATION ADJUSTMENT**

	<u>Amount</u>
Accumulated Depreciation - Per Company	\$215,215
Accumulated Depreciation - Per Staff	184,182
<b>Total Adjustment</b>	<b><u>(\$31,033)</u></b>

*Explanation of Adjustment:*

	<b>Accumulated Depreciation</b>	
Accumulated Depreciation - 1996	\$	131,588
Depreciation Expense - 1997		16,689
Depreciation Expense - 1998		16,880
Depreciation Expense - 1999		17,285
Depreciation Expense - 2000		35,883
Retirements:		
Wells and Springs		(23,021)
Pumping Equipment		<u>(11,122)</u>
Accumulated Depreciation - Per Staff	\$	<u>184,182</u>



**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 3

Page 1 of 2

**STATEMENT OF OPERATING INCOME**

	Company Exhibit	Staff Adjustments	Staff Adjusted
<b>Revenues:</b>			
461 Metered Water Revenue	\$134,823	(\$909) A	\$133,914
460 Unmetered Water Revenue	0	909 A	909
474 Other Water Revenues	2,448	0	2,448
<b>Total Operating Revenue</b>	<b>\$137,271</b>	<b>\$0</b>	<b>\$137,271</b>
<b>Operating Expenses:</b>			
601 Salaries and Wages	\$38,182	\$0	\$38,182
610 Purchased Water	0	0	0
615 Purchased Power	12,064	0	12,064
618 Chemicals	0	0	0
620 Repairs and Maintenance	6,888	(1,175) B	5,713
621 Office Supplies & Expense	7,976	0	7,976
630 Outside Services	6,091	0	6,091
635 Water Testing	1,249	0	1,249
641 Rents	0	0	0
650 Transportation Expenses	3,008	0	3,008
657 Insurance - General Liability	6,475	(2,321) C	4,154
659 Insurance - Health and Life	0	2,321 D	2,321
666 Regulatory Commission Expense - Rate Case	0	0	0
675 Miscellaneous Expense	4,561	0	4,561
403 Depreciation Expense	20,105	(3,404) E	16,701
408 Taxes Other Than Income	4,079	0	4,079
408.11 Property Taxes	8,562	0	8,562
409 Income Tax	0	50	50
<b>Total Operating Expenses</b>	<b>\$119,240</b>	<b>(\$4,529)</b>	<b>\$114,711</b>
<b>OPERATING INCOME/(LOSS)</b>	<b>\$18,031</b>	<b>\$4,529</b>	<b>\$22,560</b>
<b>Other Income/(Expense):</b>			
419 Interest and Dividend Income	\$1,891	\$0	\$1,891
421 Non-Utility Income	5,859	(1,600) F	4,259
427 Interest Expense	27,413	0	27,413
4XX Reserve/Replacement Fund Deposit	0	0	0
426 Miscellaneous Non-Utility Expense	43,912	(43,912) G	0
<b>Total Other Income/(Expense)</b>	<b>(\$63,575)</b>	<b>\$42,312</b>	<b>(\$21,263)</b>
<b>NET INCOME/(LOSS)</b>	<b>(\$45,544)</b>	<b>\$46,841</b>	<b>\$1,297</b>

**St. David Water Association**

Docket No. Docket No. W-02084A-01-0389

Test Year Ended Test Year Ended December 31, 2000

Schedule 3

Page 2 of 2

**STAFF ADJUSTMENTS**

A	METERED WATER REVENUE - Per Company	\$ 134,823	
	Per Staff	133,914	\$ (909)
	To reclassify revenues derived from standpipe service to unmetered revenue.		
B	REPAIRS AND MAINTENANCE - Per Company	\$6,888	
	Per Staff	5,713	(\$1,175)
	To reclassify fence erected around office building, from operating expense to asset account.		
C	INSURANCE - GENERAL LIABILITY - Per Company	\$6,475	
	Per Staff	4,154	(\$2,321)
	To reclassify amounts from General Liability to Health and Life Insurance.		
D	INSURANCE - HEALTH AND LIFE - Per Company	\$0	
	Per Staff	2,321	\$2,321
	To reclassify amounts to Health and Life from General Liability Insurance.		
E	DEPRECIATION - Per Company	\$20,105	
	Per Staff	16,701	(\$3,404)

*Explanation of Adjustment:***Pro Forma Annual Depreciation Expense:**

Plant in Service	\$1,289,705
Less: Non Depreciable Plant	23,100
Fully Depreciated Plant	0
Depreciable Plant	\$1,266,605
Times: Approved Depreciation Component Rates	Various
Credit to Accumulated Depreciation	\$35,883 *
Less: Amort. of CIAC* @ 3.21%	19,182
<b>Pro Forma Annual Depreciation Expense</b>	<b>\$16,701</b>

**\* Amortization of CIAC:**

Contribution(s) in Aid of Construction (Gross)	\$597,563
Less: Non Amortizable Contribution(s)	0
Fully Amortized Contribution(s)	0
Amortizable Contribution(s)	\$597,563
Times: Staff Proposed Amortization Rate	3.21%
<b>Amortization of CIAC</b>	<b>\$19,182</b>

F	NON-UTILITY INCOME - Per Company	\$5,859	
	Per Staff	4,259	(\$1,600)
	To reclass FY 2000 Hook-up Fees from Non-Utility Income to CIAC.		
G	MISCELLANEOUS NON-UTILITY EXPENSE - Per Company	\$43,912	
	Per Staff	0	(\$43,912)
	To reclassify dry Well# 4 costs from operating expense to asset account.		

**RATE DESIGN**

Monthly Usage Charge	Present	-Proposed Rates-	
	Rates	Company	Staff
5/8" x 3/4" Meter	\$14.00	\$23.00	\$15.00
3/4" Meter	14.00	23.00	15.00
1" Meter	23.00	32.00	25.00
1½" Meter	47.00	56.00	50.00
2" Meter	75.00	84.00	80.00
3" Meter	140.00	140.00	140.00
4" Meter	233.00	233.00	233.00
6" Meter	467.00	467.00	467.00
Gallons Included in Minimum			
5/8" x 3/4" Meter	3,000	5,000	0
3/4" Meter	3,000	5,000	0
1" Meter	3,000	6,000	0
1½" Meter	3,000	8,000	0
2" Meter	3,000	10,000	0
3" Meter	3,000	10,000	0
4" Meter	3,000	10,000	0
6" Meter	3,000	10,000	0
Excess of Minimum- per 1,000 gallons			
From 1 to 3,000 gallons	\$ -	\$ -	\$ 1.25
From 3,001 to 5,000 gallons	\$ 1.34	\$ 1.41	\$ 1.25
From 5,001 to 10,000 gallons	\$ 1.34	\$ 1.41	\$ 1.25
From 10,001 to 30,000 gallons	\$ 1.34	\$ 1.41	\$ 2.00
In excess of 30,000 gallons	\$ 1.34	\$ 1.41	\$ 2.25
Standpipe- per 1,000 gallons	\$ 2.50	\$ 2.50	\$ 2.50
Service Line and Meter Installation Charges			
5/8" x 3/4" Meter	\$125.00	\$175.00	\$175.00
3/4" Meter	150.00	200.00	200.00
1" Meter	200.00	250.00	250.00
1½" Meter	300.00	350.00	350.00
2" Meter	400.00	750.00	750.00
3" Meter	600.00	800.00	800.00
4" Meter	1,200.00	1,300.00	1,300.00
6" Meter	2,800.00	3,000.00	3,000.00
Service Charges			
Establishment	\$15.00	\$25.00	\$25.00
Establishment (After Hours)	30.00	40.00	40.00
Reconnection (Delinquent)	15.00	25.00	25.00
Meter Test (If Correct)	10.00	15.00	15.00
Deposit	0.00	0.00	*
Deposit Interest	0.00%	0.00%	*
Re-Establishment (Within 12 Months)	0.00	**	**
NSF Check	15.00	25.00	25.00
Deferred Payment	0.00%	0.00%	1.50%
Meter Re-Read (If Correct)	5.00	5.00	5.00
Monthly Service Charge for Fire Sprinkler			
4" or Smaller	\$0.00	\$0.00	***
6"	0.00	0.00	***
8"	0.00	0.00	***
10"	0.00	0.00	***
Larger than 10"	0.00	0.00	***

\* Per Commission Rules (R14-2-403.B)

\*\* Months off system times the minimum (R14-2-403.D)

\*\*\* 1.00% of Monthly Minimum for a Comparable Sized Meter Connection, but no less than \$5.00 per month. The Service Charge for Fire Sprinklers is only applicable for service lines separate and distinct from the primary water service line.

**TYPICAL BILL ANALYSIS**  
General Service 5/8 X 3/4 - Inch Meter

Average Number of Customers: 380

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	11,413	\$25.27	\$32.04	\$6.77	26.8%
Median Usage	7,506	\$20.04	\$26.53	\$6.49	32.4%
<u>Staff Proposed</u>					
Average Usage	11,413	\$25.27	\$30.33	\$5.06	20.0%
Median Usage	7,506	\$20.04	\$24.38	\$4.34	21.7%

Present & Proposed Rates (Without Taxes)  
General Service 5/8 X 3/4 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$14.00	\$23.00	64.3%	\$15.00	7.1%
1,000	14.00	23.00	64.3%	16.25	16.1%
2,000	14.00	23.00	64.3%	17.50	25.0%
3,000	14.00	23.00	64.3%	18.75	33.9%
4,000	15.34	23.00	49.9%	20.00	30.4%
5,000	16.68	23.00	37.9%	21.25	27.4%
6,000	18.02	24.41	35.5%	22.50	24.9%
7,000	19.36	25.82	33.4%	23.75	22.7%
8,000	20.70	27.23	31.5%	25.00	20.8%
9,000	22.04	28.64	29.9%	26.25	19.1%
10,000	23.38	30.05	28.5%	27.50	17.6%
15,000	30.08	37.10	23.3%	37.50	24.7%
20,000	36.78	44.15	20.0%	47.50	29.1%
25,000	43.48	51.20	17.8%	57.50	32.2%
50,000	76.98	86.45	12.3%	112.50	46.1%
75,000	110.48	121.70	10.2%	168.75	52.7%
100,000	143.98	156.95	9.0%	225.00	56.3%
125,000	177.48	192.20	8.3%	281.25	58.5%
150,000	210.98	227.45	7.8%	337.50	60.0%
175,000	244.48	262.70	7.5%	393.75	61.1%
200,000	277.98	297.95	7.2%	450.00	61.9%

**TYPICAL BILL ANALYSIS**  
General Service 1 - Inch Meter

Average Number of Customers: 10

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	16,607	\$41.23	\$46.96	\$5.74	13.9%
Median Usage	10,722	\$33.35	\$38.66	\$5.31	15.9%
<u>Staff Proposed</u>					
Average Usage	16,607	\$41.23	\$50.71	\$9.48	23.0%
Median Usage	10,722	\$33.35	\$38.94	\$5.59	16.8%

Present & Proposed Rates (Without Taxes)  
General Service 1 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$23.00	\$32.00	39.1%	\$25.00	8.7%
1,000	23.00	32.00	39.1%	26.25	14.1%
2,000	23.00	32.00	39.1%	27.50	19.6%
3,000	23.00	32.00	39.1%	28.75	25.0%
4,000	24.34	32.00	31.5%	30.00	23.3%
5,000	25.68	32.00	24.6%	31.25	21.7%
6,000	27.02	32.00	18.4%	32.50	20.3%
7,000	28.36	33.41	17.8%	33.75	19.0%
8,000	29.70	34.82	17.2%	35.00	17.8%
9,000	31.04	36.23	16.7%	36.25	16.8%
10,000	32.38	37.64	16.2%	37.50	15.8%
15,000	39.08	44.69	14.4%	47.50	21.5%
20,000	45.78	51.74	13.0%	57.50	25.6%
25,000	52.48	58.79	12.0%	67.50	28.6%
50,000	85.98	94.04	9.4%	122.50	42.5%
75,000	119.48	129.29	8.2%	178.75	49.6%
100,000	152.98	164.54	7.6%	235.00	53.6%
125,000	186.48	199.79	7.1%	291.25	56.2%
150,000	219.98	235.04	6.8%	347.50	58.0%
175,000	253.48	270.29	6.6%	403.75	59.3%
200,000	286.98	305.54	6.5%	460.00	60.3%

**TYPICAL BILL ANALYSIS**  
General Service 11/2 - Inch Meter

Average Number of Customers: 1

<u>Company Proposed</u>	<u>Gallons</u>	<u>Present Rates</u>	<u>Proposed Rates</u>	<u>Dollar Increase</u>	<u>Percent Increase</u>
Average Usage	8,000	\$53.70	\$56.00	\$2.30	4.3%
Median Usage	7,333	\$52.81	\$56.00	\$3.19	6.0%
<u>Staff Proposed</u>					
Average Usage	8,000	\$53.70	\$60.00	\$6.30	11.7%
Median Usage	7,333	\$52.81	\$59.17	\$6.36	12.0%

Present & Proposed Rates (Without Taxes)  
General Service 11/2 - Inch Meter

<u>Gallons Consumption</u>	<u>Present Rates</u>	<u>Company Proposed Rates</u>	<u>% Increase</u>	<u>Staff Proposed Rates</u>	<u>% Increase</u>
0	\$47.00	\$56.00	19.1%	\$50.00	6.4%
1,000	47.00	56.00	19.1%	51.25	9.0%
2,000	47.00	56.00	19.1%	52.50	11.7%
3,000	47.00	56.00	19.1%	53.75	14.4%
4,000	48.34	56.00	15.8%	55.00	13.8%
5,000	49.68	56.00	12.7%	56.25	13.2%
6,000	51.02	56.00	9.8%	57.50	12.7%
7,000	52.36	56.00	7.0%	58.75	12.2%
8,000	53.70	56.00	4.3%	60.00	11.7%
9,000	55.04	57.41	4.3%	61.25	11.3%
10,000	56.38	58.82	4.3%	62.50	10.9%
15,000	63.08	65.87	4.4%	72.50	14.9%
20,000	69.78	72.92	4.5%	82.50	18.2%
25,000	76.48	79.97	4.6%	92.50	20.9%
50,000	109.98	115.22	4.8%	147.50	34.1%
75,000	143.48	150.47	4.9%	203.75	42.0%
100,000	176.98	185.72	4.9%	260.00	46.9%
125,000	210.48	220.97	5.0%	316.25	50.3%
150,000	243.98	256.22	5.0%	372.50	52.7%
175,000	277.48	291.47	5.0%	428.75	54.5%
200,000	310.98	326.72	5.1%	485.00	56.0%

## **MEMORANDUM**

**TO:** Dennis R. Rogers, Auditor II  
Accounting and Rates

**FROM:** Dorothy Hains, Utilities Engineer  
Utilities Engineering

**THRU:** Del W. Smith, Utilities Engineer Supervisor  
Utilities Engineering

**DATE:** September 19, 2001

**RE: ENGINEERING REPORT FOR ST. DAVID WATER ASSOCIATION**  
**DOCKET NO. W-02084A-01-0389 (RATES)**  
**DOCKET NO. W-02084A-01-0636 (FINANCING)**

Attached is my Engineering Report for the St. David Applications referenced above. If you have any questions related to my report, please feel free to contact me at ext. 7274. Thank you.

**ENGINEERING REPORT  
FOR  
ST. DAVID WATER ASSOCIATION  
DOCKET NO. W-02084A-01-0389 (RATES)  
DOCKET NO. W-02476A-01-0636 (FINANCING)**

**EXECUTIVE SUMMARY**

- I. ADEQ performed a plant inspection on October 14, 1999, and found that the system has no plant deficiencies. In a June 7, 2001 memorandum to Engineering Staff ("Engineering"), ADEQ states that ADEQ has determined that this system is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4. (See Section F, Arizona Department of Environmental Quality Water Quality Compliance.)
- II. All water testing costs are presented as a pro forma expense on an annual basis. Engineering estimates annual water testing costs to be \$2,833. (See Section H, Water Testing Expenses.)
- III. Engineering recommends off-site facilities hook-up fees as delineated in Table 3 of this report. (See Section I, Other.)
- IV. Well No. 4 is not used and useful. (See Section C, Description of System.)
- V. The 45,000-gallon storage tank in Well No. 1 site was sold in 1999. (See Section C, Description of System.)
- VI. Engineering recommends depreciation rates for the Company as listed in Table 4. (See Section I, Other.)
- VII. The Company's non-account water was calculated to be 10.65 percent. Engineering recommends that the Company reduce its water loss to less than 10 percent before submitting its next rate application, or submit a detailed explanation as to why it is not cost-effective to do so. (See Section D, Water Usage.)
- VIII. Engineering recommends minor plant-in-service adjustments. (See Section I, Other.)
- IX. Engineering finds that the plant expenditures associated with the Company's Financing Application in Docket No. W-02084A-01-0636 are reasonable and appropriate. (See Section K)



**ENGINEERING REPORT  
FOR  
ST. DAVID WATER ASSOCIATION  
DOCKET NO. W-02084A-01-0389 (RATES)  
DOCKET NO. W-02084A-01-0636 (FINANCING)**

**A. PURPOSE OF REPORT**

This report was prepared in response to the referenced applications that were filed by St. David Water Association ("St. David" or "Company"). An inspection and evaluation of the St. David water system was conducted by Dorothy Hains, Utility Engineer in the accompaniment of Fred Karchner, Manager of the Company on August 7, 2001.

**B. LOCATION OF SYSTEM**

The Company's service area is located on Highway 80 in the community of St. David in Cochise County, about 7 miles south east of Benson. Figures 1 and 2 detail the location of the system in relation to other Commission regulated companies in Cochise County and in the immediate area. The Company's service area includes portions of Sections 6 and 8 in Township 18 South and Range 21 East and Sections 31, 32 and 33 in Township 17 South and Range 21 East and Section 9 in Township 18 South and Range 21 East.

**C. DESCRIPTION OF SYSTEM**

The water system consists of four wells, two storage tanks, one pressure tank, and a distribution system. Figure 3 is a schematic drawing of the water system; a detailed facility description of the system is as follows:

**I. Well Site No. 1**

This site is located on North Lee Road. A six-foot high chain link fence encloses the 100-foot by 100-foot site. Two wells, a 5,000-gallon pressure tank, one six-inch meter, a sand separator, a 45,000-gallon steel storage tank, and a tool shed are inside the fenced area.

Well No. 1, [its Arizona Department of Water Resource ("ADWR") ID number is 55-610361], is 280 feet in depth. The well is equipped with an eight-inch casing, a six-inch well meter, and a 30-horse power ("HP") pump that was replaced in 2000. This well had a flow rate of less than 100 gallons per minute ("GPM") and was subsequently abandoned later in 2000 after it became plugged. The Company plans to disconnect the well pump and reinstall it in a future well. Well No. 1 was installed in 1970. Because of the disconnection, the well and its well pump are not used and useful.

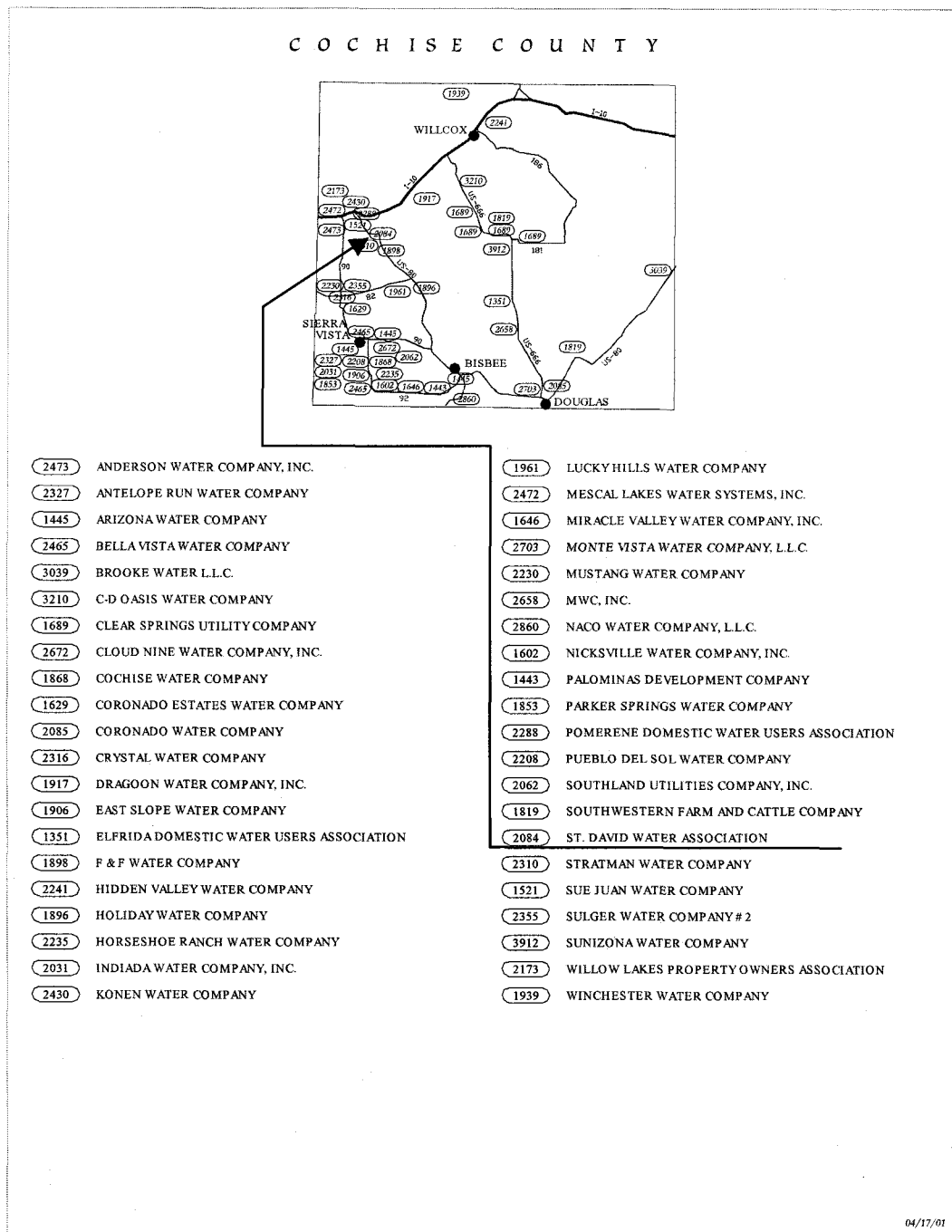
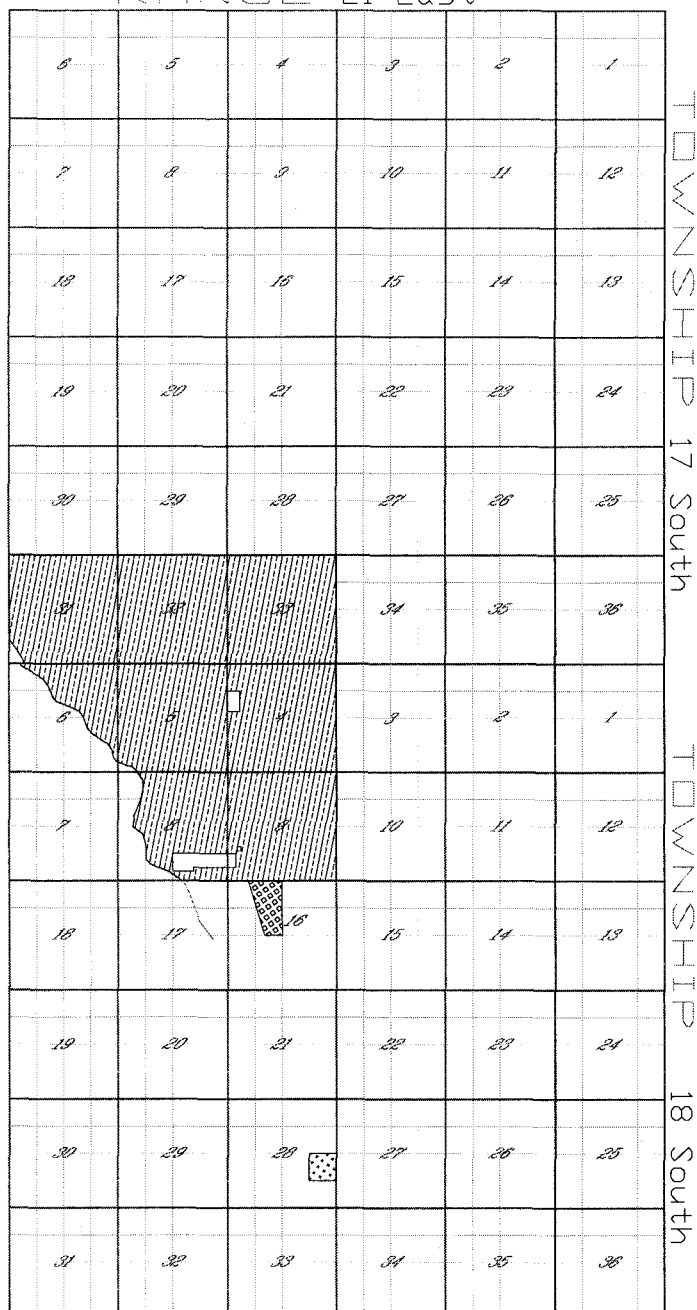



Figure 1. County Map


Figure 2 Certificate Service Area


COUNTY: *Cochise*


RANGE 21 East



 U-2084 (2)  
St. David Water Association

 W-1898 (1)  
F & F Water Company

 W-2084 (2)  
St. David Water Association

 W-2310 (1)  
Stratman Water Company

Stratman Water Company  
Docket No. W-2310-97-683  
Application to Transfer Ownership  
Docket No. W-3474-97-683

Well No. 4, [its ADWR ID number is 55-580981], is 600 feet in depth, and is approximately 30 feet east of Well No. 1. Although Well No. 4 was drilled in 1999, it has been capped since then. It is capped because the well depth is not adequate to reach an aquifer. Therefore, it is not used and useful.

The sand separator was installed in 1999. The water from Well No. 2 is pumped into the sand separator; after removing the sand, water flows to the 5,000-gallon pressure tank. Since two booster pumps had been removed from the system in 2000, the pressure tank currently functions as a storage tank instead of a pressure tank.

Although the 45,000-gallon storage tank exists in the well site, it was sold to a well driller in 2000.

## II. Well Site No. 2

This site is also located on North Lee Road, east of Well Site No. 1. A six-foot high chain link fence encloses the site. Only one well and a control panel are inside the fenced area.

Well No. 2, [its ADWR ID number is 55-502809], is 530 feet in depth. The well was installed in 1982, and, it is equipped with a 12-inch casing, a six-inch well meter and a 40-HP pump. This well has a flow rate of 355 GPM.

## III. Well Site No. 3

This site is located east of Well Site No. 2 within a utility easement and below the storage tank site. A six-foot high chain link fence (15 feet by 35 feet) encloses the site. Only one well and control panel are inside the fenced area.

Well No. 3, [its ADWR ID number is 55-542046], is 540 feet in depth. The well was installed in 1994 and is equipped with a 12-inch casing, a six-inch well meter, and a 60-HP pump. This well has a flow rate of 500 GPM. The well water is pumped into a 150,000-gallon storage tank.

## IV. 450,000-gallon Storage Tank

This storage tank and Well Site No. 3 are both located on a two-acre parcel of land that was donated to the Company in 1999. Enclosed by an eight-foot chain link fence is a 450,000-gallon steel storage tank that is 20 feet high and 62 feet in diameter. This tank was installed in 1999 and was placed in service in 2000. Because this tank bottom elevation is 4 feet below ground elevation of a 150,000-gallon tank (discussed below), the stored water in the 150,000-gallon tank gravity flows to this tank.

## V. 150,000-gallon Storage Tank

This tank is located approximately 200 feet north of the 450,000-gallon storage tank. An eight-foot tall chain link fence (60 feet by 60 feet) surrounds this 150,000-gallon storage tank. The tank is the only item located within the fenced area. The steel storage tank, which is 16 feet high and 20 feet in diameter, was installed in 1994. The water from Well No. 3 is pumped into this tank; the stored water gravity feeds the 450,000-gallon storage tank.

## VI. Distribution System

The distribution system includes 10,552 feet of two-inch polyvinyl chloride ("PVC") pipe, 17,734 feet of three-inch PVC pipe, 18,099 feet of four-inch PVC pipe, 15,424 feet of six-inch PVC pipe, 28,134 feet of eight-inch PVC pipe and 3,501 feet of 1½-inch PVC pipe, and serves 393 customers. Two fire hydrants and three standpipes have been installed in St. David's CC&N area.

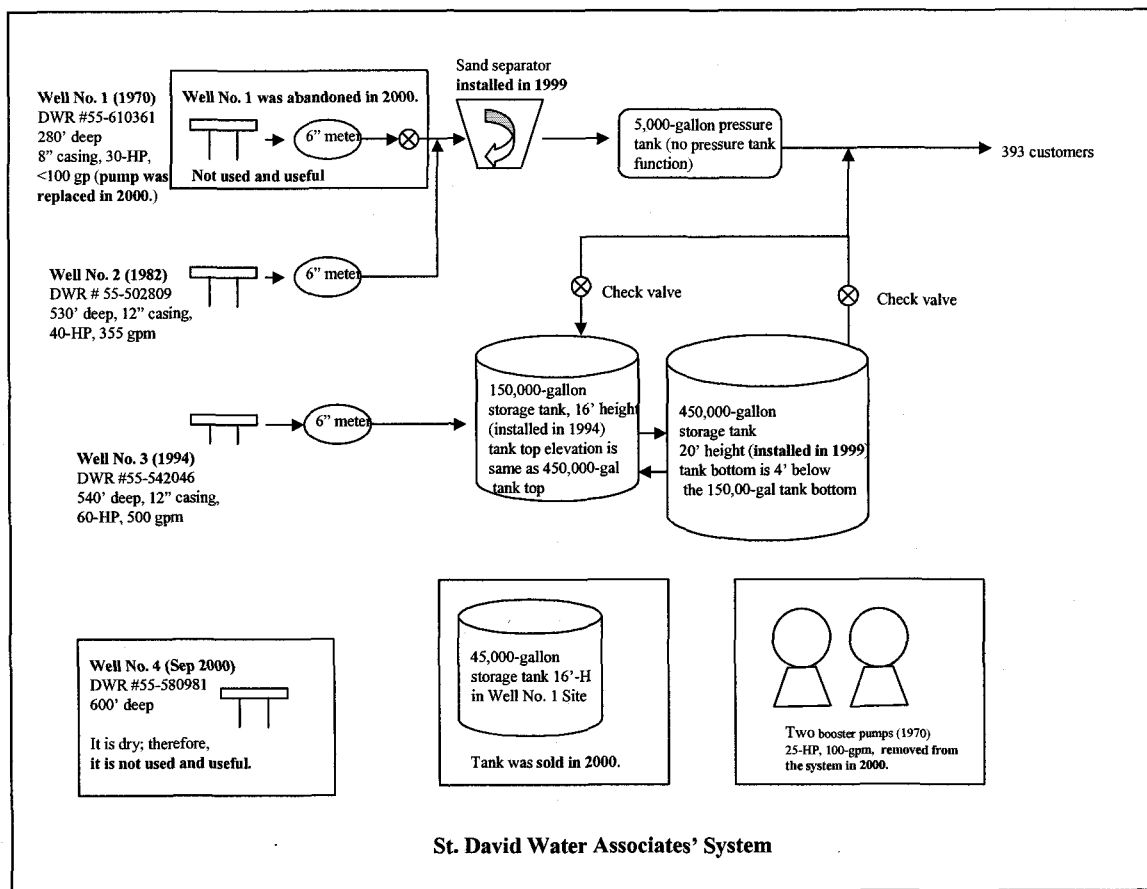


Figure 3. St. David Water System Diagram

## D. WATER USAGE

Table 1 summarizes the water usage in the Company's CC&N area. Figure 4 shows the Company's water consumption data for the test year ending December 31, 2000. During this period, St. David experienced a daily average usage of 402 gallons per day ("gpd") per customer, a high usage of 644 gpd per customer and a low usage of 245 gpd per customer. The highest monthly usage occurred in June, when 7,765,709 gallons were sold to 402 customers. The lowest monthly usage occurred in November, when 2,965,914 gallons were sold to 398 customers.

Table 1. Water Usage

Month	Number of Customers	Total Water Sold (gallons)	Monthly Average (gal/month/customers)	Daily Average (gal/day/customers)
Jan 00	392	3,363,890	8,581	277
Feb 00	397	3,486,438	8,782	303
Mar 00	400	3,954,978	9,887	319
Apr 00	397	5,912,112	14,892	496
May 00	394	7,690,634	19,519	630
Jun 00	402	7,765,709	19,318	644
Jul 00	399	5,043,661	12,641	408
Aug 00	399	6,141,910	15,393	497
Sep 00	392	5,225,319	13,031	434
Oct 00	401	3,983,668	10,009	323
Nov 00	398	2,965,914	7,547	252
Dec 00	393	2,986,701	7,600	245
Total		58,520,934		
Average			12,267	402

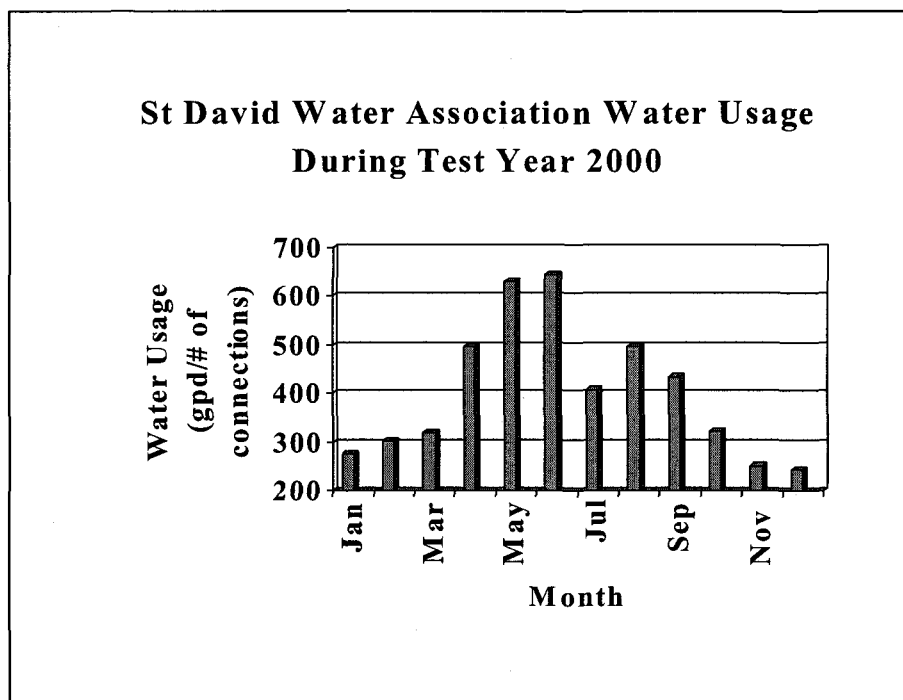


Figure 4 Water Usage

#### Non-account Water

Non-account water should be 10 percent or less and never more than 15 percent. It is important to be able to reconcile the difference between water sold and the water produced by the source. A water balance will allow a water company to identify water and revenue losses due to leakage, theft, and flushing. Non-account water for St. David was calculated to be 10.65 percent, which is just a little above the acceptable limits. Engineering recommends that the Company reduce its water loss to less than 10 percent before submitting its next rate application, or submit a detailed explanation as to why it is not cost-effective to do so.

#### **E. GROWTH PROJECTION**

Figure 5 details total actual and projected growth for the system using linear regression analysis. The number of service connections was obtained from annual reports submitted to the Commission. Based on the service meter data contained in these reports, the number of connections increased from 339 at the end of 1992 to 392 by the end of 2000, with an approximate increase rate of 6.4 connections per year. Based on the linear regression analysis, the Company could have approximately 444 customers by the end of 2006. The following table summarizes actual and projected growth in the Company's existing certificated service area.

Year	Nos. of Customers	
1992	339	Reported
1993	351	Reported
1994	369	Reported
1995	399	Reported
1996	392	Reported
1997	387	Reported
1998	401	Reported
1999	391	Reported
2000	392	Reported
2001	412	Estimated
2002	419	Estimated
2003	425	Estimated
2004	431	Estimated
2005	438	Estimated
2006	444	Estimated

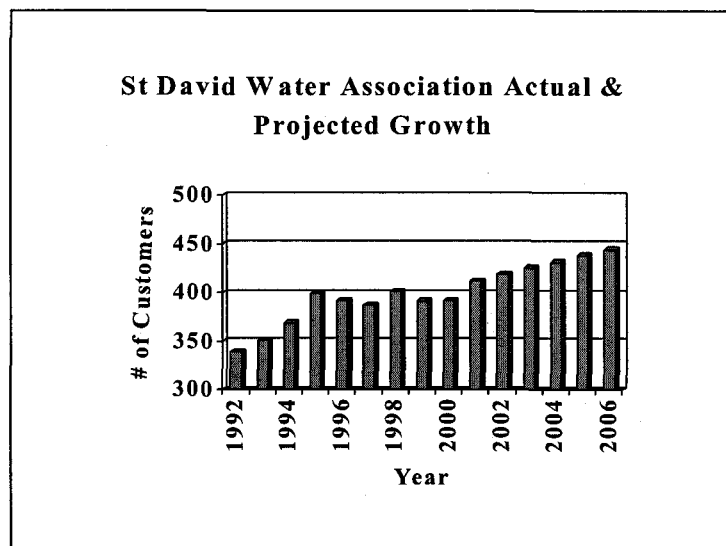


Figure 5 Actual and Projected Growth

**F. ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY ("ADEQ")**  
**WATER QUALITY COMPLAINTS**

ADEQ performed a plant inspection on October 14, 1999, and found that the system has no plant deficiencies. In a June 7, 2001 memorandum to Engineering Staff ("Engineering"), ADEQ states that ADEQ has determined that this system is currently delivering water that meets the water quality standards required by Arizona Administrative Code, Title 18, Chapter 4.



**G. ARIZONA DEPARTMENT OF WATER RESOURCES ("ADWR")  
COMPLIANCE**

St. David is not in any ADWR Active Management Area. Therefore, the Company is not subject to ADWR's gallons per capita per day ("gpcd") limit and conservation rules.

**H. WATER TESTING EXPENSES**

On December 8, 1998, ADEQ adopted rules, which provide for a monitoring assistance program ("MAP"). The MAP program was fully implemented in 1999.

The MAP program will provide baseline testing for inorganic chemicals ("IOC"), synthetic organic chemicals ("SOC") and volatile organic chemicals ("VOC") for a cost based on meter size. Participation in the MAP program is mandatory for water systems which serve less than 10,000 persons, (approximately 3,300 service connections). St. David Water Company is subject to mandatory participation in the MAP program. Engineering calculated the testing costs based on the following assumptions:

1. MAP will do baseline testing on everything except asbestos, copper, lead, nitrates, nitrites, radio-chemicals, and coliform bacteria.
2. MAP will only perform composite tests on inorganic chemicals. However, it is in the best interest of the Company and its customers to know the basic inorganic quality of each contributing source. Since testing for these parameters does not represent an extraordinary expense, the cost of basic and secondary inorganic chemical analysis for each well is included in the Engineering's estimate of monitoring expense.
3. ADEQ testing is performed in 3 year compliance cycles. Therefore, monitoring costs are estimated for a 3 year compliance period and then presented as a pro forma expense on an annualized basis.
4. MAP fees were calculated from the ADEQ MAP rules.
5. All monitoring expenses are based on Engineering's best knowledge of lab costs and methodology and 3 points of entry.
6. The estimated water testing expenses represent a minimum cost based on no "hits" other than lead and copper, and assumes compositing of well samples. If any constituents were found, then the testing costs would dramatically increase.

Table I shows the estimated annual monitoring expense, assuming participation in the MAP program. Water testing expenses should be adjusted to the annual expense amount shown in Table 2, which is \$2,833.

TABLE 2  
SUMMARY OF WATER TESTING COSTS  
2 POINTS OF ENTRY  
PARTICIPATION IN MAP

Contaminant	Cost per test	No. of tests per 3 years	total 3 year cost	Annual expense
Bacteriological (4/month)	15	144	2,160	720
Inorganics	240	2	480	160
Secondary Inorganics	120	2	240	80
Radio-chemicals (2/4yr)	55	1.50	82.5	27.5
Phase II & V				
Nitrate	25	12	300	100
Nitrite	15	12	180	60
Asbestos (2/9 yr)	180	1	180	60
Ba, Cn, F, Ni (V)	87	MAP*		
VOC	220	MAP		
Pesticides/SOC/Unregulated				
EDB & DBCP	160	MAP		
Group 1 pesticides	150	MAP		
Group 2 pesticides	200	MAP		
Group 3 herbicides	200	MAP		
Group 4 $\alpha$ benzo pyrene/adipate esters	360	MAP		
Group 5 carbamate pesticides	180	MAP		
Endothall	180	MAP		
Diquat	180	MAP		
Glyphosate	180	MAP		
Dioxin	600	MAP		
Lead & copper	25	15	375	125
MAP FEES (annual)				1,500.39
TOTAL				\$2,832.89

\* MAP is the ADEQ Monitroing Assistance Program

**I. OTHER**

**I. Off-Site Facilities Hook-up Fee**

Engineering believes that the Company's proposed Hook-up fee of \$300 per service connection for the 5/8"X3/4" meter size is reasonable.

Engineering recommends the following charges for the Off-site Facilities Hook-up Fee:

Table 3. Off-site Facilities Hook-up Fee Table

Meter size	Company Proposed	Engineering recommendation
5/8" x 3/4"	\$300	\$300
3/4 inch	N/A	\$360
1 inch	\$500	\$600
1 1/2 inch	\$900	\$1,200
2 inch	\$1,500	\$1,920
3 inch	\$2,500	\$3,600
4 inch	\$4,000	\$6,000
6 inch	\$8,000	\$12,000

**II. Miscellaneous**

A. Engineering recommends the following corrections to the proposed test year plant-in-service amounts that are listed on page 10 of the Company's Application:

1. The Company reported a \$4,000 expenditure on "Land and Land Rights" in 1998. According to Company, this plant was contributed, therefore, the \$4,000 should be shown as contribution.
2. The Company did not include a \$1,175 fencing installation job that occurred on March 28, 2000. This plant investment should be listed under Account Number 304, "Structures and Improvements".
3. The Company paid \$4,255 to drill Well No. 1 in 1970. This well is no longer in-service.
4. The Company purchased Well No. 1 pump in 2000 at a cost of \$8,168. This item should not be included in plant-in-service, but as an item in Account Number 151, "Plant Material & Supplies" at \$8,168.
5. Depreciation Rates

Staff recommends using its guidelines for depreciation rates. These guidelines are for annual accrual rates on an account-by-account basis to be used in the future for the calculation of annual

depreciation expense. Table 4 shows these rates for the average service life and the annual accrual rate for each depreciable plant account.

Table 4. Water Depreciation Rates

Acct. No.	Depreciable Plant	Average Service Life (Years)	Annual Accrual Rate (%)
304	Structures & Improvements	30	3.33
305	Collecting & Impounding Reservoirs	40	2.50
306	Lake, River, Canal Intakes	40	2.50
307	Wells & Springs	30	3.33
308	Infiltration Galleries	15	6.67
309	Raw Water Supply Mains	50	2.00
310	Power Generation Equipment	20	5.00
311	Pumping Equipment	8	12.5
320	Water Treatment Equipment		
320.1	Water Treatment Plants	30	3.33
320.2	Solution Chemical Feeders	5	20.0
330	Distribution Reservoirs & Standpipes		
330.1	Storage Tanks	45	2.22
330.2	Pressure Tanks	20	5.00
331	Transmission & Distribution Mains	50	2.00
333	Services	30	3.33
334	Meters	12	8.33
335	Hydrants	50	2.00
336	Backflow Prevention Devices	15	6.67
339	Other Plant & Misc Equipment	15	6.67
340	Office Furniture & Equipment	15	6.67
340.1	Computers & Software	5	20.00
341	Transportation Equipment	5	20.00
342	Stores Equipment	25	4.00
343	Tools, Shop & Garage Equipment	20	5.00
344	Laboratory Equipment	10	10.00
345	Power Operated Equipment	20	5.00
346	Communication Equipment	10	10.00
347	Miscellaneous Equipment	10	10.00
348	Other Tangible Plant	----	----

**K.     FINANCING APPLICATION (DOCKET NO. W-02084A-01-0636)**

The Company is requesting approval to borrow \$60,000 in mortgage debt. This debt would be used to purchase a building, a storage shed, and lot. The building will be used for a Company office and to house a maintenance and repair facility. Staff believes the plant expenditures, itemized below, are reasonable and appropriate.

1,512 square feet commercial building (\$31.75/ square ft). .....	\$48,000.00
A 12' x 24' tool shed (\$6.94/sq ft) .....	\$2,000.00
An 18,122 square feet lot (\$0.55/sq ft) .....	\$10,000.00
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Total .....	\$60,000.00